



Best Management Practices for Construction and Development Projects Missouri Bladderpod *Lesquerella filiformis*

Common name • Missouri Bladderpod
Scientific name • *Lesquerella filiformis*
Federal status • Threatened
State status • Endangered

Purpose and Use

The information in this document is to be used to help avoid and minimize species impacts due to construction practices. It is not intended as a guide to manage habitat for a given species. Please contact the Department of Conservation if habitat management information is needed. Because every project and location differ, following the recommendations in this document does not guarantee impacts will not occur to the species and additional information may be required in certain instances. Following the recommendations in this document does not complete Endangered Species Act consultation that may be necessary for species listed under the federal Endangered Species Act; please contact the U.S. Fish and Wildlife Service for more information.

Ecology

Missouri Bladderpod is a herbaceous annual plant that occurs on limestone glades and rocky roadsides in southwest Missouri. In Missouri it is found in Dade, Greene, Christian, and Lawrence counties. Missouri Bladderpod can be locally abundant in rocky grazed pastures and along roadsides. Bladderpod seeds drop to the ground in late May and early June, lie dormant through the summer, and germinate in fall. After germination, the plant spends the winter as a rosette (a cluster of leaves near the ground). Stems are produced in spring and Bladderpod flowers from April to May.

Reasons for Decline

Missouri Bladderpod depends on open glade habitat and is threatened by encroachment of woody vegetation and exotic cool season grasses. Much of the available habitat for Missouri Bladderpod has been lost through urbanization and conversion of native landscapes to exotic pasture grasses.

Specific Recommendations

Projects planned within the Missouri range of Missouri Bladderpod should include a survey of the project area for the presence of limestone glades or limestone outcrops. The presence of numerous eastern red cedar trees are often linked to Missouri Bladderpod habitat. Habitat should be surveyed for Missouri

Bladderpod presence between November 1 and June 1, with best results obtained in early May during flowering.

- Limit construction to areas of deeper soil, away from limestone outcrops and glades.
- Missouri Bladderpod benefits from proper glade management, including prescribed fire (in August), and will tolerate some grazing.
- Prevent heavy colonization of limestone glades by woody plants, especially eastern red cedar, by use of cutting and prescribed burning.
- Maintain native glade vegetation by controlling aggressive exotic plants such as tall fescue, downy chess, Japanese chess, and musk thistle.
- Avoid non-specific herbicide use in areas of Missouri Bladderpod between October and July. Monocot-specific herbicides may be used as needed.
- Avoid heavy grazing and grazing during flowering and fruiting periods (March-July).

General Recommendations

If your project involves the use of Federal Highway Administration transportation funds, these recommendations may not fulfill all contract requirements. Please contact the Missouri Department of Transportation at 573-526-4778 or the [Missouri Department of Transportation Environmental Studies webpage](#) for additional information on recommendations.

Information Contacts

For further information regarding regulations for development in rivers and streams, contact:

For species information:

[Missouri Department of Conservation](#)

Science Branch

P.O. Box 180

Jefferson City, MO 65102-0180

Telephone: 573-751-4115

For species information and Endangered Species Act Coordination:

[U.S. Fish and Wildlife Service](#)

Ecological Services

101 Park Deville Drive, Suite A

Columbia, MO 65203-0007

Telephone: 573-234-2132

For Clean Water Act Coordination:

[Missouri Department of Natural Resources](#)

Water Protection Program
P.O. Box 176
Jefferson City, MO 65102-0176
Telephone: 573-751-1300, 800-361-4827

[U.S. Army Corps of Engineers](#)

Regulatory Branch
700 Federal Building
Kansas City, MO 64106-2896
Telephone: 816-389-3990

[U.S. Environmental Protection Agency](#)

EPA Region 7 Water Division
11201 Renner Boulevard
Lenexa, KS 66219
Telephone: 913-551-7977

Disclaimer

These Best Management Practices were prepared by the Missouri Department of Conservation with assistance from state and federal agencies, contractors, and others to provide guidance to those who wish to voluntarily act to protect wildlife and habitat. Compliance with these Best Management Practices is not required by the Missouri wildlife and forestry law nor by any regulation of the Missouri Conservation Commission. Federal laws such as the Clean Water Act and the Endangered Species Act, and state or Local laws need to be considered for construction and development projects and require permits and/or consultation with the appropriate agency. Following the recommendations provided in this document will help reduce and avoid project impacts to the species, but impacts may still occur. Please contact the appropriate agency for further coordination and to complete compliance requirements.